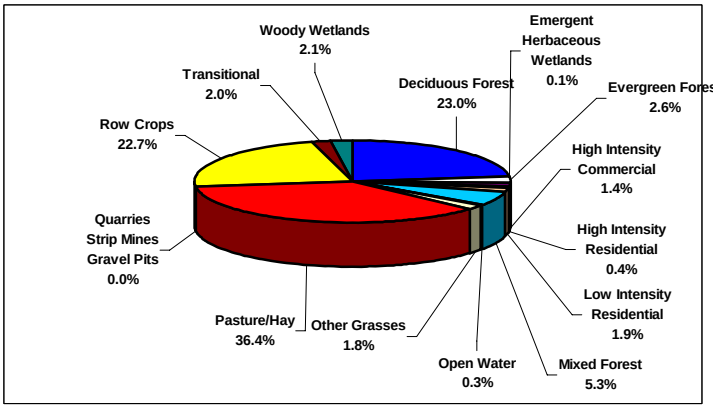
Summary – Red River Watershed

In 1996, the Tennessee Department of Environment and Conservation Division of Water Pollution Control adopted a watershed approach to water quality. This approach is based on the idea that many water quality problems, like the accumulation of point and nonpoint pollutants, are best addressed at the watershed level. Focusing on the whole watershed helps reach the best balance among efforts to control point sources of pollution and polluted runoff as well as protect drinking water sources and sensitive natural resources such as wetlands. Tennessee has chosen to use the USGS 8-digit Hydrologic Unit Code (HUC-8) as the organizing unit.

The Watershed Approach recognizes awareness that restoring and maintaining our waters requires crossing traditional barriers (point *vs.* nonpoint sources of pollution) when designing solutions. These solutions increasingly rely on participation by both public and private sectors, where citizens, elected officials, and technical personnel all have opportunities to participate. The Watershed Approach provides the framework for a watershed-based and community-based approach to address water quality problems.

Chapter 1 of the Red River Watershed Water Quality Management Plan discusses the Watershed Approach and emphasizes that the Watershed Approach is not a regulatory program or an EPA mandate; rather it is a decision-making process that reflects a common strategy for information collection and analysis as well as a common understanding of the roles, priorities, and responsibilities of all stakeholders within a watershed. Traditional activities like permitting, planning and monitoring are also coordinated in the Watershed Approach.

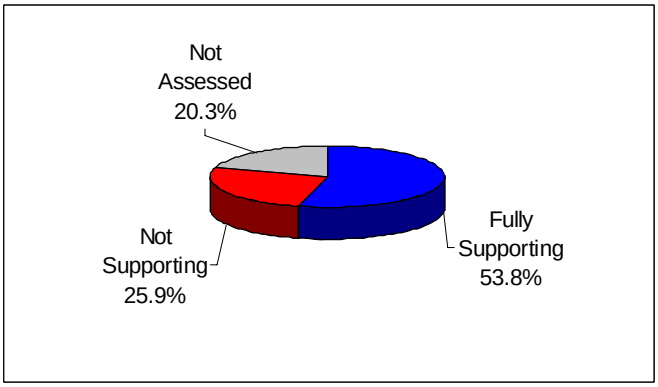
A detailed description of the watershed can be found in Chapter 2. The Red River Watershed is approximately 1,444 square miles (801 mi^2 in Tennessee) and includes parts of five Tennessee counties. A part of the Cumberland River drainage basin, the watershed has 788.7 stream miles and 15 lake acres in Tennessee.



Land Use Distribution in the Tennessee Portion of the Red River Watershed.

One designated state natural area and one state park are located in the watershed. Fifty-seven rare plant and animal species have been documented in the watershed, including five rare fish species, one rare snail species and two rare crustacean species. Portions of four streams in the Red River Watershed are listed in the National Rivers Inventory as having one or more outstanding natural or cultural values.

A review of water quality sampling and assessment is presented in Chapter 3. Using the Watershed Approach to Water Quality, 511 sampling events occurred in the Red River Watershed in 2000-2005. These were conducted at ambient, ecoregion or watershed monitoring sites. Monitoring results support the conclusion that 58.7% of stream miles and 100% of lake acres assessed fully support one or more designated uses.



Water Quality Assessment of Streams and Rivers in the Red River Watershed. Assessment data are based on the 2004 Water Quality Assessment of 788.7 stream miles in the watershed.

Also in Chapter 3, a series of maps illustrate overall use support in the watershed, as well as use support for the individual uses of Fish and Aquatic Life Support, Recreation, Irrigation, and Livestock Watering and Wildlife. Another series of maps illustrate streams that are listed for impairment by specific causes (pollutants) such as pathogens, habitat alteration, and nutrient enrichment, and siltation.

Point and Nonpoint Sources are addressed in Chapter 4. Chapter 4 is organized by HUC-12 subwatersheds. Maps illustrating the locations of STORET monitoring sites and stream gauging stations are also presented in each subwatershed.

HUC-10	HUC-12
0513020601	051302060101 (Red River)
	051302060102 (Red River)
0513020602	051302060201 (South Fork Red River)
	051302060202 (South Fork Red River)
0513020604	051302060401 (Red River)
	051302060402 (Spring Creek)
	051302060403 (Red River)
	051302060404 (Elk Fork Creek)
	051302060405 (Red River)
	051302060406 (Passenger Creek)
	051302060407 (Red River)
0513020605	051302060501 (Sulphur Fork Creek)
	051302060502 (Sulphur Fork Creek)
	051302060503 (Carr Creek)
	051302060504 (Sulphur Fork Creek)
	051302060505 (Millers Creek)
	051302060506 (Sulphur Fork Creek)
0513020606	051302060603 (West Fork Red River)
	051302060604 (Spring Creek)
	051302060605 (West Fork Red River)
0513020607	051302060701 (Noahs Springs Branch)
	051302060702 (Piney Fork Creek)
	051302060703 (Little West Fork Red River)
	051302060704 (Fletchers Fork)
	051302060705 (Little West Fork Red River)

The Tennessee Portion of the Red River Watershed is Composed of twenty-five USGS-Delineated Subwatersheds (12-Digit Subwatersheds).

Point source contributions to the Tennessee portion of the Red River Watershed consist of twelve individual NPDES-permitted facilities, six of which discharge into streams that have been listed on the 2004 303(d) list. Other point source permits in the watershed are Aquatic Resource Alteration Permits (119), Tennessee Multi-Sector Permits (98), Ready Mix Concrete Plant Permits (10), Mining Permits (4), and Water Treatment Plant Permits (1). Agricultural operations include cattle, hog, and sheep farming. Maps illustrating the locations of permit sites and tables summarizing livestock practices are presented in each subwatershed.

Chapter 5 is entitled *Water Quality Partnerships in the Red River Watershed* and highlights partnerships between agencies and between agencies and landowners that are essential to success. Programs of federal agencies (Natural Resources Conservation Service, U.S. Fish and Wildlife Service, U.S. Geological Survey, and U.S. Army Corps of Engineers), and state agencies (TDEC/State Revolving Fund, TDEC Division of Water Supply, Tennessee Department of Agriculture, and Kentucky Division of Water) are summarized. Local initiatives of organizations active in the watershed (Cumberland River Compact, Red River Watershed Association, The Nature Conservancy, and Five Rivers RC&D Council) are also described.

Point and Nonpoint source approaches to water quality problems in the Red River Watershed are addressed in Chapter 6. Chapter 6 also includes comments received during public meetings, links to EPA-approved TMDLs in the watershed, and an assessment of needs for the watershed.

The full Red River Watershed Water Quality Management Plan can be found at: http://www.state.tn.us/environment/wpc/watershed/wsmplans/